SOUTHERN PACIFIC COMPANY

(PACIFIC SYSTEM.)

86

TIME TABLE

FOR THE

TUCSON DIVISION

To Take Effect Sunday, August 28, 1921, at 12:01 A. M.

MOUNTAIN STANDARD TIME (105th MERIDIAN).

For the government and information of employes only, and not intended for the use of the public.

J. H. DYER,
General Manager.

T. H. WILLIAMS,
Assistant General Manager.

G. F. RICHARDSON,
Superintendent of Transportation.

R. L. RUBY,
Assistant Superintendent of Transportation.

YUMA SUBDIVISION

Eastward FROM SAN FRANCISCO — TOWARD SAN FRANCISCO Westward

Capacity of siding in car lengths, location of Scales, Water, Fuel, Turning and Telegraphone Stations.	SECOND CLASS					FIRST CLASS				Distance from San Francisco	Time Table No. 86 August 28, 1921.	Distance from Gila	FIRST CLASS				SECOND CLASS		
	244	426	412	424	92	4	102	2	110				3	109	101	1	243	423	91
	San Francisco Manifest Freight	Freight	Freight	Local Freight	Los Angeles Manifest Freight	Golden State Limited	Sunset Limited	Californian	Sunset Express				Golden State Limited	Sunset Express	Sunset Limited	Californian	San Francisco Manifest Freight	Local Freight	Los Angeles Manifest Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Wed., Only	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		**STATIONS**		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Tues., Only	Arrive Daily
Yard WYFTOP	5.05PM	1.55PM	6.50AM	**5.00AM**	12.01AM	8.20PM	5.00PM	1.56AM	**12.56AM**	733.3	DN-R **PATIO**	122.4	s 6.30AM	s 11.44AM	s 2.25PM	s **12.56AM**	9.00AM	5.40PM	**5.00AM**
71 P	**5.23**	**2.17**	7.10	5.25	12.20	8.27	**5.07**	2.04	f 1.04	736.3	3.0 IVALON	119.4	6.22	f 11.35	**2.17**	12.46	8.40	**5.23** **5.02**	4.30
71	5.34	**2.45**	7.25	5.45	**12.40**	8.32	5.12	2.10	f 1.10	740.1	3.8 ARABY	115.6	6.15	f 11.27	2.10	**12.40**	8.20	4.30	4.05
79 P	5.43	2.55	7.40	**6.09**	12.58	8.37	5.17	2.16	f 1.15	743.7	3.6 FORTUNA	112.0	**6.09**	f 11.19	2.04	12.34	8.08	4.16	3.40
71 P	5.51	3.05	**8.00**	6.25	**1.20**	8.41	5.21	2.21	f **1.20**	746.6	2.9 BLAISDELL	109.1	6.04	f 11.12	1.59	12.28	**8.00**	4.05	3.25
20									f	750.2	3.6 KINTER (Spur)	105.5		f					
71 P	6.10	**3.26**	8.20	6.50	1.41	8.53	5.33	**2.34**	f 1.33	753.5	3.3 DN DOME	102.2	5.52	f 10.58	1.47	12.15	7.40	**3.26**	**2.34**
									f	755.2	1.7 GRANITE SPUR (Spur)	100.5		f					
71 P	6.25	3.45	8.35	**7.25**	**2.05**	9.03	5.43	2.45	f **1.47**	760.2	5.0 LIGURTA	95.5	5.41	f 10.47	1.36	12.03AM	**7.25**	2.45	**2.05** **1.42**
71 P	6.40	4.05	8.50	7.45	2.27	9.13	5.53	2.56	f 1.58	767.2	7.0 ADONDE	88.5	5.30	f 10.36	1.25	11.52PM	7.10	2.25	1.20
71 PW	7.07	4.30	9.14	8.15	2.45	9.20	6.00	3.04	s 2.05	770.0	2.8 DN WELLTON	85.7	5.25	s 10.30	1.20	11.47	7.00	2.05	1.00
79 P	7.20	4.45	9.22	8.30	2.55	9.25	6.05	3.10	f 2.11	773.1	3.1 KAFA	82.6	5.19	f 10.24	1.14	11.42	6.53	1.52	12.40
71 P	7.30	5.00	9.30	8.45	3.02	9.30	6.10	3.16	f 2.16	776.4	3.3 TACNA	79.3	5.14	f 10.18	1.09	11.37	6.45	1.39	12.20AM
79 P	7.45	5.12	9.38	9.00	**3.22**	9.35	6.15	**3.22**	f 2.22	780.1	3.7 GAEL	75.6	5.08	f 10.11	1.03	11.31	6.32	1.26	11.55PM
71 P	8.00	5.25	**10.04**	9.15	3.45	9.40	6.20	3.28	f 2.28	783.8	3.7 COLFRED	71.9	5.03	f **10.04**	12.58	11.25	6.20	1.13	11.39
75 P	8.15	5.35	10.20	9.30	4.05	9.46	6.26	3.35	f 2.35	788.6	4.8 PEMBROKE	67.1	4.56	f 9.56	**12.51**	**11.18**	6.00	**12.51**	**11.18**
94 76 P	9.00	**6.33**	10.39	**9.49**	**4.50**	9.53	**6.33**	3.42	f 2.42	792.6	4.0 DN MOHAWK	63.1	**4.50**	f **9.49**	12.45	11.12	5.45	12.30PM	10.40
71 P	9.15	7.05	10.50	10.25	**5.15**	**9.59**	6.39	3.48	f 2.49	795.9	3.3 KIM	59.8	4.42	f 9.41	12.37	11.04	**5.15**	11.45AM	**9.59**
71 P	**9.40**	7.20	**11.05**	10.45	5.30	10.05	6.45	3.55	f 2.56	800.5	4.6 STOVAL	55.2	4.34	f 9.33	12.29	10.57	5.05	**11.05**	**9.40**
69 P	**10.12**	7.42	11.30AM	11.05	5.45	**10.12**	6.53	4.03	f 3.05	806.2	5.7 MUSINA	49.5	4.24	f 9.24	12.20	10.49	4.50	10.35	9.24
72 W	**10.41**	8.00	**12.11PM**	11.25	6.10	10.19	7.01	**4.14**	f 3.14	811.9	5.7 D AZTEC	43.8	**4.14**	f 9.15	**12.11**	**10.41**	**4.14**	10.15	9.00
71 P	11.05	**8.28**	12.30	11.40	6.30	**10.31**	7.11	4.32	f **3.27**	819.7	7.8 STANWIX	36.0	4.01	f 9.03	12.01PM	**10.31**	**3.27**	9.55	**8.28**
77 P	11.34	8.38	12.50	**11.57AM**	6.40	10.35	7.15	4.38	f 3.33	822.0	2.3 LAVA	33.7	3.56	f 8.58	**11.57AM**	10.25	3.02	9.45	7.45
Y										824.9	2.9 DELOSA	30.8							
East 89 PWF West 82	11.55PM	9.29	1.45	12.45PM	7.00	10.43	**7.23**	4.47	s **3.48**	826.1	1.2 DN SENTINEL	29.6	**3.48**	s 8.50	11.50	f 10.18	2.50	9.32	**7.23**
71 P	12.30AM	**10.08**	2.15	1.30	7.25	10.53	7.35	4.59	f 3.59	833.1	7.0 TARTRON	22.6	3.36	f 8.34	11.34	**10.08**	2.30	8.55	6.50
71 P	12.45	10.40	2.50	2.00	7.40	11.04	7.44	5.11	f 4.09	839.9	6.8 PIEDRA	15.8	3.26	f 8.23	11.24	9.58	2.10	8.35	6.25
71 P	1.00	**11.12**	3.25	2.20	**8.14**	**11.12**	7.51	5.21	f 4.18	845.5	5.6 THEBA	10.2	3.19	f **8.14**	11.15	9.50	1.50	**8.14**	6.00
71 P	**1.30**	11.40	4.05	2.40	8.35	11.19	7.58	5.30	f 4.25	850.3	4.8 SMURR	5.4	3.13	f 8.06	11.06	9.43	**1.30**	7.49	5.32
Yard WTFP	2.00AM	11.55PM	4.40PM	3.00PM	9.05AM	s 11.28PM	s 8.06PM	s 5.40AM	s 4.34AM	855.7	5.4 DN-R **GILA**	0.0	3.06AM	7.57AM	10.57AM	9.35PM	1.00AM	7.35AM	5.10PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Wed- Only	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		(122.4)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Tues. Only	Leave Daily
	(8.55)	(10.00)	(9.50)	(10.00)	(9.04)	(3.08)	(3.06)	(3.44)	(3.38)		Total Time		(3.24)	(3.47)	(3.28)	(3.21)	(8.00)	(10.05)	(11.50)
	13.72	12.24	12.45	12.24	13.50	39.05	39.50	32.80	33.68		Average speed per hour		36.00	32.35	35.30	36.57	15.30	12.13	10.34

Automatic Block Signals

Westward trains are superior to trains of the same class in the opposite direction.

No. 101 will stop at any station to discharge passengers holding tickets from San Antonio and points east.
No. 102 will stop on signal at any station to receive passengers for San Antonio and points east.
No. 1 will stop at any station to discharge passengers holding tickets from points east of Tucson.
Nos. 3 and 4 will stop at any station to discharge or receive passengers holding tickets from or for points east of Topeka, Kansas.

GILA SUBDIVISION

Eastward — FROM SAN FRANCISCO | TOWARD SAN FRANCISCO — Westward

Time Table No. 86

August 28, 1921.

Capacity of sidings in car lengths, location of Scales, Water, Fuel, Turning and Telegraphone Stations	SECOND CLASS					FIRST CLASS					Distance from San Francisco		Distance from Tucson	FIRST CLASS					SECOND CLASS		
	426	412	92	422	244	4	102	108	2	110				109	101	107	1	3	91	419	243
	Freight	Freight	Los Angeles Manifest Freight	Local Freight	San Francisco Manifest Freight	Golden State Limited	Sunset Limited	Maricopa-Tucson Passenger	Californian	Sunset Express		STATIONS		Sunset Express	Sunset Limited	Tucson-Maricopa Passenger	Californian	Golden State Limited	Los Angeles Manifest Freight	Local Freight	San Francisco Manifest Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Thur. & Sat.	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Mon. & Fri.	Arrive Daily
Yard WFTP	11.15PM	2.55PM	10.00AM	6.00AM	2.30AM	11.33PM	8.11PM		5.45AM	4.40AM	855.7	Automatic Block Signals DN-R **GILA** 3.4	128.2	s 7.52AM	s 10.52AM		s 9.30PM	s 3.01AM	4.15PM	6.40PM	12.40AM
71 P	**11.40PM**	3.15	10.15	6.15	**2.55**	**11.40**	8.19		5.53	f .4.48	859.1	COLEDON 6.0	124.8	f 7.44	10.45		9.22	**2.55**	3.55	6.25	12.25
71 P	**12.09AM**	**3.35**	**10.36**	6.35	3.18	**11.51PM**	8.30		6.05	f 4.59	865.1	BOSQUE 4.0	118.8	f 7.35	**10.36**		9.13	2.47	**3.35**	6.10	**12.09AM** **11.46PM**
71 P	12.30	4.10	11.10	6.55	3.35	12.01AM	8.40		6.17	f 5.12	869.1	OCAPOS 5.5	114.8	f 7.27	10.28		9.03	2.39	2.55	5.50	11.30
80 PY	12.50	4.50	11.35	**7.17**	4.00	12.13	**8.53**		6.30	f 5.29	874.6	DN ESTRELLA 4.8	109.3	f **7.17**	10.18		**8.53**	2.30	2.10	5.30	11.10
71 P	1.05	**5.05**	11.59AM	8.00	4.25	12.21	9.00		6.39	f 5.37	879.4	BUCHAN 4.3	104.5	f 7.09	10.10		8.44	2.22	1.35	**5.05**	10.45
71 PW	1.15	5.22	12.20PM	8.20	4.45	12.27	9.06		6.47	f 5.43	883.7	MOBILE 4.7	100.2	f 7.03	10.03		8.37	2.16	1.05	4.45	10.30
71 P	1.25	5.32	**12.45**	8.35	4.58	12.34	9.13		**6.56**	f 5.50	888.4	ENID 4.4	95.5	f **6.56**	9.55		8.30	2.09	**12.45**	4.25	10.10
71 P	1.34	5.42	1.00	8.50	5.10	12.40	9.19		7.05	f 5.56	892.8	HEATON 5.0	91.1	f 6.14	9.48		8.23	2.03	12.20PM	4.05	9.55
West 64 East 70 WYOP	**1.55**	6.00	1.15	**9.38**	5.40	s 12.55	s **9.30**	8.10PM	s 7.15 7.40	s 6.05 **6.20**	897.8	Auto. Block Signals DNR **MARICOPA** 5.1	86.1	6.35 s **6.20**	s **9.38**	s 7.15PM	8.15 s 7.45	s **1.55**	11.58AM	3.30	**9.30**
70 P	2.30	6.15	**1.35**	9.53	**6.08**	1.04	9.38	f **8.20**	7.48	f 6.30	902.9	LIRIM 4.8	81.0	f **6.08**	9.26	f 7.02	7.35	1.34	11.20	**1.35**	**8.20**
79 P	2.48	6.25	2.00	10.05	**6.39**	1.12	9.45	f 8.30	7.55	f **6.39**	907.7	BON 4.8	76.2	f 6.00	9.19	f 6.53	7.26	1.27	11.00	1.15	7.50
71 P	3.05	**6.44**	2.25	**10.25**	7.05	**1.20**	9.52	f 8.38	8.02	f 6.49	912.5	NUNEZ 6.3	71.4	f 5.51	9.12	f **6.44**	7.17	**1.20**	**10.25**	1.00	7.35
71 PW	3.32	**7.08**	2.55	10.45	7.35	1.33	10.02	s 8.48	f 8.12	s 7.04	918.8	DN CASA GRANDE 4.9	65.1	s 5.41	9.04	s 6.32	s **7.08**	1.12	10.05	**12.40**	**7.08**
71 P	4.00	7.33	3.20	11.00	**8.19**	1.40	10.09	f 8.56	**8.19**	f 7.13	923.7	ARIZOLA 4.7	60.2	f 5.27	8.57	f 6.24	7.00	1.05	9.50	12.01PM	6.40
71 P	4.19	7.50	3.45	11.15	**8.51**	1.47	10.16	s 9.04	8.25	f 7.22	928.4	TOLTEC 4.7	55.5	f 5.19	**8.51**	s **6.16**	6.52	12.58	9.36	11.50AM	**6.16**
71 P	4.40	8.27	4.10	11.35	**9.25**	1.54	10.23	f 9.12	8.31	f 7.31	933.1	ELOY 4.4	50.8	f 5.11	8.44	f 6.05	6.44	12.51	**9.25**	11.35	5.45
76 FW	**5.03**	8.40	4.30	11.50AM	9.40	2.01	10.30	f 9.19	**8.38**	f 7.40	937.5	DN PICACHO 3.2	46.4	f **5.03**	**8.38**	f 5.55	6.37	12.45	9.10	11.25	5.15
76 P	5.35	8.50	**4.45**	12.10PM	9.50	2.06	10.35	f 9.24	**8.45**	f 7.48	940.7	COATILLA 3.5	43.2	f 4.57	**8.32**	f 5.47	6.31	12.40	**8.45** **8.22**	11.15	**4.45**
70 P	5.50	9.02	5.00	12.25	10.00	2.11	10.40	f 9.29	8.50	f **7.56**	944.2	WYMOLA 3.7	39.7	f 4.50	8.26	f 5.40	6.25	12.35	**7.56**	11.05	4.32
81 P	6.05	9.15	5.15	12.40	10.12	2.16	10.45	f 9.35	8.56	f 8.04	947.9	MONTROSE 3.5	36.0	f 4.43	8.20	f 5.35	6.20	12.30	7.38	10.50	4.23
72 PWY	6.20	**9.40**	**5.30**	1.00	**10.35**	2.22	10.50	s **9.40**	f 9.03	s **8.15**	951.4	Auto. Block Signals DN **RED ROCK** 7.0	32.5	s 4.37	**8.15**	s **5.30**	s 6.15	12.25	7.25	**10.35**	4.15
71 P	**6.48**	10.25	**6.06**	1.25	11.10	2.32	11.00	f 9.52	9.13	f 8.33	958.4	NAVISKA 3.8	25.5	f 4.22	8.06	f 5.17	**6.06**	12.16	**6.48**	10.15	4.00
78 P	7.25	10.40	6.30	2.00	11.20	2.39	11.06	f 10.00	9.19	f 8.44	962.2	MARANA 4.7	21.7	f 4.15	8.00	f 5.09	6.01	12.11	6.10	10.00	3.40
75 W	**7.53**	**11.13**	6.47	2.30	11.40	2.47	**11.13**	s 10.09	9.26	f 8.57	966.9	D RILLITO 5.2	17.0	f 4.07	**7.53**	s 5.01	5.54	12.04AM	5.45	9.50	3.20
71 P	8.20	**11.57PM**	7.03	**3.05**	11.55AM	2.56	11.21	f 10.19	**9.33**	f **9.12**	972.1	CORTARO 5.3	11.8	f 3.58	7.45	f 4.53	5.47	**11.57PM**	5.25	**9.33** **9.07**	**3.05**
71 PW	**8.40**	12.30AM	7.40	3.30	12.15PM	3.04	11.29	f 10.29	9.40	f 9.26	977.4	JAYNES 3.8	6.5	f 3.50	7.38	f 4.45	5.40	11.50	5.00	**8.40**	2.45
71 P	8.55	12.45	7.55	3.45	12.30	3.10	11.35	f 10.36	9.46	f 9.36	981.2	Auto. Block Signals — Double Track DNR STOCKHAM 1.6	2.7	f 3.43	7.33	f 4.38	5.35	11.45	4.45	8.30	2.30
									s 9.55AM		982.8	E. P. & S. W. JCT. 1.1	1.1								
Yard YWFTOP	9.28AM	1.10AM	8.15PM	4.00PM	12.45PM	s 3.20AM	s 11.45PM	s 10.45PM		s 9.50AM	983.9	DN-R **TUCSON**	0.0	3.33AM	7.25AM	4.30PM	5.25PM	11.35PM	4.30AM	8.15AM	2.15PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Thur. & Sat.	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		(128.2)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Mon. & Fri.	Leave Daily
	(10.13) 12.54	(10.15) 12.52	(10.15) 12.52	(10.00) 12.82	(10.15) 12.52	(3.47) 33.87	(3.34) 35.94	(2.35) 33.32	(4.10) 30.77	(5.10) 24.80		Total Time. Average speed per hour		(4.19) 29.66	(3.27) 37.15	(2.45) 31.31	(4.05) 31.40	(3.26) 37.33	(11.45) 10.81	(10.25) 12.30	(10.25) 12.30

Westward trains are superior to trains of the same class in the opposite direction.

No. 1 will stop at any station to discharge passengers from east of Tucson.

No. 101 will stop at any station to discharge passengers holding tickets from San Antonio and points east.

No. 102 will stop on signal at any station to receive passengers for San Antonio and points east.

Nos. 3 and 4 will stop on signal at any station to discharge or receive passengers from or for points east of Topeka, Kansas.

TUCSON SUBDIVISION

Eastward **FROM SAN FRANCISCO** — **TOWARD SAN FRANCISCO** Westward

Capacity of sidings in car lengths, location of Scales, Water, Fuel, Turning and Telegraphone Stations	SECOND CLASS					FIRST CLASS			Distance from San Francisco		Time Table No. 86 August 28, 1921. STATIONS	Distance from Lordsburg	FIRST CLASS			SECOND CLASS		
	92	244	412	418	426	102	110	4					109	101	1	243	417	91
	Los Angeles Manifest Freight	SanFrancisco Manifest Freight	Freight	Local Freight	Freight	Sunset Limited	Sunset Express	Golden State Limited					Sunset Express	Sunset Limited	Californian	San Francisco Manifest Freight	Local Freight	Los Angeles Manifest Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Monday Only	Leave Daily	Leave Daily	Leave Daily	Leave Daily					Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Friday Only	Arrive Daily
Yard YWFTOP	10.15PM	2.20PM	8.40AM	5.00AM	2.15AM	11.59PM	10.20AM	3.35AM	983.9	DN-R	**TUCSON**	164.4	s 3.15AM	s 7.10AM	s 5.00PM	11.30AM	11.45AM	1.30AM
										D'ble Track	0.8							
											T. & N. R. R. JCT.							
											3.0							
71	10.30	2.50	9.10	5.20	2.30	12.06AM	f10.29	3.42	987.7	DNR	**POLVO**	160.6	3.07	7.02	f 4.51	11.05	11.30	1.10
										AUTOMATIC BLOCK SIGNALS	3.0							
71 P	10.40	3.12	9.32	5.32	2.40	12.12	f**10.36**	3.47	990.7		**WILMOT**	157.6	3.02	6.57	f 4.46	**10.36**	11.20	12.50
											3.1							
71 P	10.50	3.30	9.50	5.45	**2.57**	12.17	f10.43	3.52	993.8		**RANKIN**	154.5	**2.57**	6.52	f 4.40	10.20	11.10	12.41
											4.8							
72 PW	11.05	3.55	**10.10**	6.05	3.15	**12.25**	f**10.54**	4.00	998.6		**ESMOND**	149.7	2.49	6.44	f 4.31	**10.10**	**10.54**	**12.25**
											4.7							
71 P	11.22	**4.22**	**10.25**	**6.36**	**4.08**	12.33	f11.05	**4.08**	1003.3	D	**VAIL**	145.0	f 2.40	**6.36**	f **4.22**	9.55	**10.25**	12.07AM
											5.2							
71 P	**11.45PM**	4.42	10.41	6.56	4.35	12.45	f11.18	4.19	1008.5		**IRENE**	139.8	2.28	6.25	f 4.11	9.30	10.00	**11.45PM**
											4.1							
72 PW	12.01AM	5.00	11.12	7.15	4.50	12.53	f11.27	4.27	1012.6	D	**PANTANO**	135.7	f 2.18	6.17	f 4.03	9.10	9.40	11.25
											3.5							
72 P	12.35	5.16	**11.36**	7.27	5.10	1.00	f**11.36**	4.34	1016.1		**BUELL**	132.2	2.08	6.10	f 3.56	8.50	9.20	11.10
											3.6							
72 P	**1.08**	5.30	11.53AM	7.40	5.25	**1.08**	f11.44	4.41	1019.7		**AMOLE**	128.6	1.59	6.03	f 3.49	8.25	9.05	10.55
											3.9							
North 71 South 71 PY	**1.50**	5.50	12.30PM	**7.55**	**5.56**	1.16	f11.53AM	4.48	1023.6	DN	**MESCAL**	124.7	f **1.50**	**5.56**	f 3.42	**7.55**	8.45	10.40
											4.6							
71 P	2.10	6.05	12.50	8.10	6.35	1.24	f12.03PM	4.56	1028.2		**CHAMISO**	120.1	1.41	5.47	f 3.34	7.30	8.25	10.20
											4.4							
Yard WFYP	2.25AM	6.20PM	1.25PM	8.25AM	**7.00AM**	s **1.32AM**	s12.14PM	s 5.04AM	1032.6	DN	**BENSON**	115.7	**1.32AM**	5.38AM	3.25PM	**7.00AM**	8.05AM	10.00PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Monday Only	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			(48.7)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Friday Only	Leave Daily
	(4.10)	(4.00)	(4.45)	(3.25)	(4.45)	(1.33)	(1.54)	(1.29)			Total Time		(1.43)	(1.32)	(1.35)	(4.30)	(3.40)	(3.30)
	11.68	12.17	10.25	14.25	10.25	31.42	25.69	32.83			Average speed per hour		28.36	31.76	30.76	10.82	13.28	13.91

Westward trains are superior to trains of the same class in the opposite direction.

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No. 102 will stop on signal at any station to receive passengers for San Antonio and points east.

No. 1 will stop at any station to discharge passengers holding tickets from points east of El Paso.

No. 4 will stop at any station to receive passengers for points east of Topeka, Kans.

Benson is registering station for trains originating and terminating at that point.

TUCSON SUBDIVISION—(Continued)

Eastward FROM SAN FRANCISCO

TOWARD SAN FRANCISCO Westward

Capacity of sidings in car lengths, location of Scales, Water, Fuel, Turning, and Telephone Stations.		SECOND CLASS					FIRST CLASS			Distance from San Francisco			Time Table No. 86 August 28, 1921.	Distance from Lordsburg	FIRST CLASS					SECOND CLASS			
		244	412	426	428	92	110	4	102						101	1	109			427	91	243	
		San Francisco Manifest Freight	Freight	Freight	Local Freight	Los Angeles Manifest Freight	Sunset Express	Golden State Limited	Sunset Limited						Sunset Limited	Californian	Sunset Express			Local Freight	Los Angeles Manifest Freight	San Francisco Manifest Freight	
		Leave Daily	Leave Daily	Leave Daily	Leave Wed. only	Leave Daily	Leave Daily	Leave Daily	Leave Daily				STATIONS		Arrive Daily	Arrive Daily	Arrive Daily			Arrive Thurs. only	Arrive Daily	Arrive Daily	
Yard WFYP		6.30PM	1.35PM	7.25AM	7.15AM	2.30AM	12.20PM	5.07AM	1.35AM	1032.6	Automatic Block Signals	DN	**BENSON** 3.2	115.7	s 5.35AM	s 3.22PM	s 1.20AM			3.10PM	9.50PM	6.50AM	
71 P		6.45	1.55	7.41	7.30	2.47	f 12.28	5.13	1.41	1035.8			FENNER 2.7	112.5	5.27	f 3.15	1.11			2.55	9.35	6.28	
71 P		6.55	2.10	7.59	7.40	3.00	f 12.35	**5.21**	1.47	1038.5			CURVO 2.5	109.8	**5.21**	f 3.09	1.05			2.45	9.21	6.13	
71 WP		7.15	**2.32**	8.14	8.00	3.12	f 12.42	5.28	1.53	1041.0		N	SIBYL 2.9	107.3	5.15	f 3.04	12.59			**2.32**	9.12	5.58	
71 P		7.30	**2.59**	8.33	8.10	3.22	f 12.48	**5.33**	1.58	1043.9			TULLY 3.4	104.4	5.10	f **2.59**	12.53			2.15	8.58	**5.33**	
71 PW		7.45	3.18	8.49	8.25	3.40	f 12.56	5.39	2.04	1047.3			OCHOA 3.5	101.0	**5.04**	f 2.53	12.47			2.00	8.45	**5.04**	
71 P		8.00	3.36	9.12	8.40	3.55	f 1.04	5.46	2.11	1050.8			LANCHA 3.1	97.5	4.57	f 2.46	12.40			1.45	8.30	4.40	
74 73 PY		**8.15**	4.00	9.31	9.00	**4.20**	f 1.13	5.52	2.18	1053.9		DN	**DRAGOON** 4.4	94.4	4.51	f 2.40	f 12.33			1.34	**8.15**	**4.20**	
71 P		8.45	4.30	9.54	9.15	**4.44**	f **1.21**	5.59	2.25	1058.3			MANZORO 5.6	90.0	**4.44**	f 2.33	12.23			**1.21**	7.45	3.50	
75 P		9.15	4.45	10.15	9.45	5.02	s 1.37	6.07	2.33	1063.9		D	**COCHISE** 5.7	84.4	4.36	s 2.25	f 12.14			12.45	7.20	3.30	
71 P		9.30	5.00	10.41	10.00	5.15	f 1.46	6.15	2.41	1069.6			HADO 5.1	78.7	4.28	f 2.14	12.04AM			12.30	6.55	3.10	
75 YW		9.45	5.20	11.01	10.40	5.35	s **2.07**	f 6.23	**2.48**	1074.7		DN	**WILLCOX** 4.7	73.6	4.20	s **2.07**	s 11.55PM			12.15PM	6.30	**2.48**	
69 P		10.01	5.35	**11.25**	10.55	6.00	f 2.16	6.30	2.55	1079.4			DRURY 3.2	68.9	4.13	1.58	f 11.41			**11.25AM**	6.05	2.15	
52 48 PY		10.20	**5.50**	11.59AM	11.10	6.15	f 2.23	6.35	3.00	1082.6			RASO 5.1	65.7	4.08	f 1.52	11.35			11.10	**5.50**	2.00	
73 P		10.32	6.05	12.21PM	11.30	6.28	f 2.32	6.43	3.08	1087.7			ALRICH 3.3	60.6	3.59	1.44	f 11.26			10.50	5.20	1.40	
70 P		10.40	6.30	12.31	11.45AM	**6.48**	f 2.38	**6.48**	3.13	1091.0			LUZENA 3.5	57.3	3.52	f 1.38	11.21			10.40	5.07	1.30	
71 P		10.48	6.45	12.57	12.01PM	7.05	f 2.45	6.53	3.18	1094.5			CHOLLA 3.9	53.8	3.45	1.32	f 11.15			10.30	4.55	1.15	
West 122WF East 118YPO		11.03 11.40	7.20	**1.25**	12.50	7.45	s 3.15	s 7.05	s **3.30**	1098.4		DN-R	**BOWIE** 4.2	49.9	3.35 s **3.30**	s **1.25**	s 11.08			10.15	4.40	1.00	
71 P		11.59PM	7.40	1.35	**1.08**	8.00	f 3.23	7.11	3.36	1102.6			HOLT 4.0	45.7	3.22	f **1.08**	f 10.53			9.20	4.15	12.35	
71 P		**12.26AM**	7.55	2.01	1.30	8.15	f 3.29	7.17	3.42	1106.6			OLGA 3.6	41.7	3.16	f 1.02	f 10.47			9.05	3.58	**12.26**	
71 P		12.40	8.05	2.22	1.45	8.25	f **3.35**	7.22	3.47	1110.2			KARRO 4.0	38.1	3.11	12.56	f 10.42			8.55	**3.35**	12.18	
71WFYP		12.52	8.20	2.42	2.05	**8.42**	s 3.43	7.28	3.53	1114.2		DN	SAN SIMON 3.4	34.1	3.05	s 12.49	f 10.36			**8.42**	3.20	12.09	
71 P		1.02	8.37	**3.01**	2.20	9.00	f 3.50	7.33	3.58	1117.6			BAWTRY 4.2	30.7	3.00	12.41	f 10.28			8.32	**3.01**	12.01AM	
71 P		1.15	8.54	3.15	**2.40**	9.30	f 3.59	7.40	4.04	1121.8			VANAR 3.2	26.5	2.54	f 12.35	10.22			8.20	**2.40**	11.51PM	
78 P		1.30	9.08	3.31	2.55	9.50	f 4.06	7.47	4.10	1125.0			CAVOT 3.9	23.3	2.48	12.29	f 10.16			8.10	2.25	11.32	
77 72 PY		2.00	9.30	3.52	3.10	10.15	f 4.17	**7.56**	4.18	1128.9		DN	STEINS 3.8	19.4	2.40	f 12.20	f 10.08			**7.56**	2.10	11.20	
71 P		2.10	**9.59**	4.02	3.25	10.25	f 4.25	8.02	4.23	1132.7			MONDEL 3.8	15.6	2.33	12.12	f **9.59**			7.25	1.50	11.10	
71 P		**2.28**	10.22	4.13	3.40	10.35	f 4.33	8.07	4.28	1136.5			CONRAD 4.3	11.8	**2.28**	12.06PM	f 9.52			7.10	1.40	11.00	
71 P		2.45	**10.45**	4.27	3.55	10.46	f 4.42	8.14	4.34	1140.8			GARY 3.1	7.5	2.22	f 11.59AM	9.46			6.55	1.27	**10.45**	
71 P		3.00	11.10	**4.49**	4.10	11.00	f **4.49**	8.19	4.38	1143.9			PYRA 3.4	4.4	2.17	11.54	f 9.41			6.45	1.20	10.35	
										1147.3			A. & N. M. R. R. CROSSING 1.0	1.0									
Yard WFYTP		3.30AM	11.30PM	5.20PM	4.25PM	11.25AM	s 5.00PM	s 8.28AM	s 4.47AM	1148.3		DN-R	**LORDSBURG**	0.0	2.09AM	11.46AM	9.33PM			6.30AM	1.00PM	10.15PM	
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Wed. only	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				(115.7)		Leave Daily	Leave Daily	Leave Daily			Leave Thurs. only	Leave Daily	Leave Daily	
		(9.00) 12.85	(9.55) 11.66	(9.55) 11.66	(9.10) 12.62	(8.55) 12.97	(4.40) 24.79	(3.21) 34.53	(3.12) 36.15				Total Time Average speed per hour		(3.26) 33.70	(3.36) 32.13	(3.47) 30.58			(8.40) 13.35	(8.50) 13.09	(8.35) 13.47	

Westward trains are superior to trains of the same class in the opposite direction.

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LORDSBURG SUBDIVISION

Eastward FROM SAN FRANCISCO — TOWARD SAN FRANCISCO Westward

Time Table No. 86

August 28, 1921.

Capacity of sidings in car lengths, location of Scales, Water, Fuel, Turning and Telegraphone Stations	SECOND CLASS				FIRST CLASS			Distance from San Francisco				Distance from Rio Grande	FIRST CLASS			SECOND CLASS		
	412	92	244	414	110	4	102						1	109	101	91	413	243
	Freight	Los Angeles Manifest Freight	San Francisco Manifest Freight	Local Freight	Sunset Express	Golden State Limited	Sunset Limited			STATIONS			Californian	Sunset Express	Sunset Limited	Los Angeles Manifest Freight	Local Freight	San Francisco Manifest Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Wed. and Saturday	Leave Daily	Leave Daily	Leave Daily						Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Tues. and Friday	Arrive Daily
Yard WF YTP	7.52PM	12.16PM	4.15AM	4.00AM	5.10PM	8.34AM	4.52AM	1148.3	DN-R	**LORDSBURG**	4.7	144.6	s 11.40AM	s 9.27PM	s 2.04AM	11.59AM	5.35PM	9.45PM
75 P	8.09	12.50	**4.59**	4.15	f **5.18**	8.41	**4.59**	1153.0		ULMORIS	6.0	139.9	f 11.30	**9.18**	1.55	11.42	**5.18**	**9.18**
71 P	**8.30**	1.10	5.40	4.27	f 5.27	8.50	5.07	1159.0		LISBON	5.4	133.9	f **11.20**	9.09	1.47	**11.20**	4.47	**8.30**
76 P	**9.01**	1.30	6.00	4.39	f 5.38	9.00	5.14	1164.4		HAWKINS	3.6	128.5	f 11.11	**9.01**	1.39	10.53	4.32	7.55
71 WP	9.27	1.50	6.20	4.50	f 5.46	9.06	5.19	1168.0	DN	SEPAR	5.8	124.9	f 11.04	f 8.54	1.33	10.30	4.20	7.35
76 P	9.50	2.05	6.40	5.03	f 5.56	9.15	5.27	1173.8		LADIM	5.8	119.1	f 10.55	8.45	1.25	10.05	4.00	7.10
75 P	10.10	2.20	6.55	5.16	f 6.06	9.24	5.34	1179.6		WILNA	3.9	113.3	f 10.45	8.36	1.17	9.44	3.40	6.50
76 P	10.30	2.30	7.10	5.26	f 6.13	**9.30**	5.39	1183.5		QUINCY	5.0	109.4	f 10.37	8.29	1.11	**9.30**	3.20	6.37
75 WP	10.50	**2.55**	7.30	**5.46**	f **6.22**	9.37	**5.46**	1188.5	D	GAGE	4.7	104.4	f 10.26	f 8.20	1.03	9.00	**2.55**	**6.22**
58 P	11.10	3.50	7.46	6.10	f 6.31	9.44	5.52	1193.2		MONGOLA	6.4	99.7	f 10.17	8.10	12.55	8.42	2.35	5.58
71 P	11.30	4.15	**8.10**	6.25	f 6.41	9.52	6.00	1199.6		TUNIS	3.7	93.3	f 10.07	8.01	12.46	**8.10**	2.15	5.40
71 P	11.50PM	4.30	8.22	6.35	f 6.47	**9.59**	6.05	1203.3		PARMA	2.8	89.6	f **9.59**	7.55	12.40	7.40	1.50	5.28
75					6.52	10.03	6.09	1206.1		CAMP CODY	0.6	86.8	9.53	7.50	12.36			
								1206.7		E. P. & S. W. R. R. CROSSING	0.3	86.2						
								1207.0		E. P. & S. W. R. R. JCT.	1.0	85.9						
Yard POWY	**12.32AM**	**4.55**	8.55	**6.50** **7.45**	s 7.15	s 10.15	s 6.20	1208.0	Auto. Block Signals DN-R	**DEMING**	4.5	84.9	s 9.48	s 7.45	s **12.32**	**7.20**	1.30PM 11.35AM	**4.55**
71 P	12.48	5.20	**9.28**	8.00	f **7.23**	10.23	**6.27**	1212.5		LUXOR	6.4	80.4	f **9.28**	**7.23**	12.18	**6.27**	11.20	3.32
71 P	1.18	5.40	9.55	8.13	f 7.33	10.31	6.35	1218.9		CARNE	3.1	74.0	f 9.19	7.02	12.10	5.50	11.00	3.18
14					f			1222.0		MIESSE (Spur)	3.7	70.9	f	f				
71 P	1.45	6.00	**10.40**	8.28	f 7.43	**10.40**	6.44	1225.7		MYNDUS	3.9	67.2	f 9.10	f 6.49	12.01AM	5.30	**10.40**	3.00
71 WP	2.00	6.15	11.00	8.38	f 7.50	10.46	6.49	1229.6		AKELA	4.3	63.3	f 9.04	6.42	11.55PM	5.14	10.15	2.45
71 PFW	2.25	**6.34**	11.20	**8.58**	f 8.02	10.52	6.55	1233.9	DN	CAMBRAY	4.5	59.0	f **8.58**	f **6.34**	11.49	4.58	10.05	2.36
71 P	2.45	6.53	11.32	9.20	f 8.10	10.59	7.01	1238.4		DONA	4.6	54.5	f 8.50	6.24	11.43	4.28	9.44	2.18
72 P	3.10	7.15	11.44AM	9.33	f 8.18	11.06	7.07	1243.0		CHAPPEL	4.4	49.9	8.44	f 6.17	11.37	4.15	9.33	2.05
81 P	3.30	7.34	12.01PM	9.46	f 8.26	11.13	7.13	1247.4	D	ADEN	3.9	45.5	f 8.37	f 6.10	11.31	4.03	9.23	1.50
76 P	**3.50**	7.50	12.25	10.00	f 8.33	11.19	7.18	1251.3		PRONTO	3.3	41.6	8.30	f 6.02	11.25	**3.50**	9.12	1.38
71 P	4.05	8.01	12.40	10.10	f 8.39	11.24	7.22	1254.6		KENZIN	4.8	38.3	8.24	f 5.56	11.19	3.33	9.02	1.26
75 WP	4.30	8.15	**1.00**	10.22	f 8.47	11.31	7.29	1259.4	N	AFTON	5.3	33.5	f 8.16	f 5.48	11.11	3.20	8.52	**1.00**
71 P	4.55	**8.55**	1.20	10.40	f **8.55**	11.39	7.36	1264.7		RUTTER	4.8	28.2	8.08	f 5.39	11.03	3.03	8.41	12.40
71 PW	5.15	9.30	1.35	10.55	f 9.03	11.46	7.43	1269.5	D	LANARK	5.0	23.4	f 8.01	f 5.31	10.55	2.50	8.30	12.20PM
75 P	5.40	10.05	1.55	11.10	f 9.11	**11.53AM**	**7.50**	1274.5		VEVAY	5.2	18.4	**7.50**	f 5.21	10.45	2.33	8.12	**11.53AM**
North 78 South 72 YPW	6.05	**10.37**	2.30	**11.30**	f 9.20	12.01PM	**7.57**	1279.7	Auto. Block Signals DN	STRAUSS	5.5	13.2	f 7.37	f 5.13	**10.37**	2.20	**7.57**	**11.30**
76 P	6.30	11.00	2.52	11.50AM	f 9.30	12.09	8.05	1285.2		LIZARD	4.2	7.7	**7.27**	f 4.59	10.27	1.57	**7.27**	11.00
71 P	6.45	11.23	3.10	**12.16PM**	f 9.39	**12.16**	8.12	1289.4	D	ANAPRA	2.5	3.5	7.19	f 4.50	10.19	1.39	7.08	10.35
								1291.9		BRICKLAND (Spur)	1.0	1.0						
	6.55AM	11.36PM	3.35PM	2.35PM	9.47PM	12.22PM	8.17AM	1292.9		**RIO GRANDE**		0.0	7.13AM	4.43PM	10.13PM	1.25AM	7.00AM	10.25AM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Wed. and Saturday	Arrive Daily	Arrive Daily	Arrive Daily			(144.6)			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Tue. and Friday	Leave Daily
	(11.03) 13.08	(11.20) 12.75	(11.20) 12.75	(10.35) 13.66	(4.37) 31.32	(3.48) 38.05	(3.25) 42.32			........Time over District.......... ....Average Speed per Hour........			(4.27) 32.49	(4.44) 30.55	(3.51) 37.55	(10.34) 13.68	(10.35) 13.66	(11.20) 12.75

The figures at El Paso given below are for information only. Trains between Rio Grande and El Paso will be governed by time table of G. H. & S. A. Ry., El Paso Division.

	412	92	244	414	110	4	102	Distance from San Francisco	Stations	1	109	101	91	413	243
	7.25AM	12.01AM	4.00PM	3.05PM	10.00PM	12.35PM	8.30AM	1295.8	El Paso	7.00AM	4.30PM	10.00PM	1.00AM	6.30AM	10.00AM

No. 101 will stop at any station to discharge passengers holding tickets from San Antonio and points east.

No. 102 will stop on signal at any station to receive passengers for San Antonio and points east.

No. 1 will stop at any station to discharge passengers holding tickets from points east of El Paso.

No. 4 will stop at any station to receive passengers for points east of Topeka, Kans.

Westward trains are superior to trains of the same class in the opposite direction.

TUCSON SUBDIVISION

Eastward FROM SAN FRANCISCO — TOWARD SAN FRANCISCO Westward

Capacity of sidings in car lengths, location of Scales, Water, Fuel, Turning and Telegraphone Stations.	SECOND CLASS	FIRST CLASS	Distance from San Francisco	Time Table No. 86 August 28, 1921.	Distance from Calabasas	FIRST CLASS	SECOND CLASS
	484	14				13	483
	Local Freight	Motor				Motor	Local Freight
	Leave Mon. Only	Leave Daily Ex. Sunday		**STATIONS**		Arrive Daily Ex. Sunday	Arrive Tues. Only
WYFP	8.00AM	12.45PM	1032.6	DN-R **BENSON**	78.4	s11.50AM	11.35AM
				0.4			
			1033.0	E. P. & S. W. R. R. JCT.	78.0		
				0.8			
39	8.15	f12.50	1033.8	N. M. & A. YARD	77.2	f11.40	11.20
				4.2			
14		f 1.00	1038.0	KENNARD (Spur)	73.0	f11.30	
				3.4			
		f 1.09	1041.4	LANDS CROSSING (No Siding)	69.6	f11.20	
				4.1			
28	8.45	f 1.20	1045.5	BIDDLE	65.5	f11.10	10.47
				4.4			
14		f	1049.9	CONTENTION (Spur)	61.1	f	
				1.4			
47 W	9.30	s 1.35	1051.3	D **FAIRBANK**	59.7	s10.55	10.30
				0.4			
			1051.7	E. P. & S. W. CROSSING	59.3		
				5.3			
15		f 1.53	1057.0	BROOKLINE	54.0	f10.31	
				5.5			
39	**10.15**	s 2.08	1062.5	HUACHUCA	48.5	s**10.15**	9.55
				11.3			
35 W	11.00	s 2.40	1073.8	ELGIN	37.2	s 9.45	9.15
				2.2			
6		f	1076.0	CANELO (Spur)	35.0	f	
				6.1			
39	11.45AM	s 3.00	1082.1	SONOITA	28.9	s 9.20	8.40
				6.3			
		f	1088.4	ASHBURN (No Siding)	22.6	f	
				3.6			
37 W	12.35PM	f 3.30	1092.0	CRITTENDEN	19.0	f 8.50	8.05
				3.1			
38	1.00	s 3.40	1095.1	D PATAGONIA	15.9	s 8.40	7.50
				3.2			
5			1098.3	FLUX (Spur)	12.7		
				0.3			
29	1.20	f 3.51	1098.6	FARALLON	12.4	f 8.23	7.35
				0.8			
14		f 3.54	1099.4	BLOXTON	11.6	f 8.20	
				2.6			
18		f 4.03	1102.0	SANFORDS	9.0	f 8.11	
				2.9			
		f	1104.9	FULLER'S RANCH (No Siding)	6.1	f	
				6.1			
31 YP	2.20PM	s 4.30PM	1111.0	R **CALABASAS**	0.0	7.45AM	6.45AM
	Arrive Mon. Only	Arrive Daily Ex. Sunday		(78.4)		Leave Daily Ex. Sunday	Leave Tues. Only
	(6.20) 12.37	(3.45) 20.21		........Total Time........ ....Average speed per hour........		(4.05) 19.20	(4.50) 16.22

Westward trains are superior to trains of the same class in the opposite direction.

Main track switch of Tucson Subdivision at Calabasas will be set and locked for the Gila Subdivision.

Trains 13 and 14 stop on signal at road crossing 1039 C-D east of Kennard.

Eastward **FROM SAN FRANCISCO**

TOWARD SAN FRANCISCO Westward

Capacity of sidings in car lengths location of Scales, Water, Fuel, Turning and Telegraphone Stations.	**SECOND CLASS**		**FIRST CLASS**		Distance from San Francisco		Time Table No. 86 August 28, 1921.	Distance from Nogales	**FIRST CLASS**		**SECOND CLASS**	
	484 Local Freight	482 Local Freight	14 Motor	12 Mexican Express			**STATIONS**		13 Motor	11 Mexican Express	483 Local Freight	481 Local Freight
	Leave Monday Only	Leave Sat. Only	Leave Daily Ex. Sunday	Leave Daily					Arrive Daily Ex Sunday	Arrive Daily	Arrive Tues. Only	Arrive Sat. Only
Yard WFTOPY		7.00AM		10.30AM	983.9	DN-R	**TUCSON**	66.3		s 4.15PM		10.30AM
							0.8					
					984.7		T. & N. R. R. JCT.	65.5				
							2.2					
					986.9		E. P. & S. W. CROSSING & JCT.	63.3				
							3.0					
64		7.30		f 10.50	989.9		AGUIRRE	60.3		f 3.52		9.47
							3.9					
65		7.45		f 10.57	993.8		XAVIER	56.4		f 3.44		9.35
							4.8					
64		8.00		f 11.05	998.6		FELIX	51.6		f 3.35		9.20
							3.8					
131 W		8.30		s 11.13	1002.4		**SAHUARITA**	47.8		s 3.28		9.08
							4.6					
64		8.53		f 11.22	1007.0		HARTT	43.2		f 3.18		8.53
							3.4					
3				f	1010.4		CONTINENTAL (Spur)	39.8		f		
							1.7					
65		9.30		f 11.32	1012.1		MORALES	38.1		f 3.10		8.38
							1.5					
				f	1013.6		HACKETT (Spur)	36.6		f		
							2.7					
64		10.00		f 11.40	1016.3		CANOA	33.9		f 3.02		8.23
							2.2					
				f	1018.5		SOPRI (No Siding)	31.7		f		
							2.6					
64		10.30		s 11.50	1021.1	D	AMADO	29.1		s 2.53		8.08
							4.5					
64		10.50		f 11.59AM	1025.6		CHAVEZ	24.6		f 2.43		7.53
							2.5					
3				f	1028.1		SOTOS CROSSING (Spur)	22.1		f		
							1.5					
63 W		11.10		f 12.08PM	1029.6		TUBAC	20.6		f 2.35		7.39
							4.6					
64		11.35		f 12.17	1034.2		OTERO	16.0		f 2.27		7.24
							3.2					
64		11.55AM		f 12.23	1037.4		SILVA	12.8		f 2.21		7.14
							2.7					
31 PY	2.25PM	12.30PM	4.35PM	s 12.30	1040.1	R	**CALABASAS**	10.1	s 7.40AM	s 2.15	6.40AM	7.05
							2.8					
5		12.50	f 4.41	f	1113.8		PLOMO	7.3	f 7.34	f		
							1.7					
			f 4.45	f	1115.5		SAXTON (No Siding)	5.6	f 7.30	f		
							3.0					
15			f	f	1118.5		BENEDICT (Spur)	2.6	f	f		
							2.6					
Yard WFTOP	3.05PM	1.30PM	s 5.00PM	s 12.55PM	1121.1	DNR	**NOGALES**	0.0	7.15AM	1.50PM	6.00AM	6.30AM
	Arrive Monday Only	Arrive Sat. Only	Arrive Daily Ex. Sunday	Arrive Daily			(66.3)		Leave Daily Ex. Sunday	Leave Daily	Leave Tues. Only	Leave Sat. Only
	(0.40)	(6.30)	(0.25)	(2.25)			Total Time		(0.25)	(2.25)	(0.40)	(4.00)
	15.15	10.20	24.24	27.43			Average speed per hour		24.24	27.43	15.15	16.57

Westward trains are superior to trains of the same class in the opposite direction.

Exception: No. 12 is superior to No. 11., No. 482 is superior to No. 481.

Main track switch of Tucson Subdivision at Calabasas will be set and locked for the Gila Subdivision.

Mile posts between Calabasas and Nogales are numbered in accord with distance via Benson Branch.

1. ON THE DOUBLE TRACK BETWEEN TUCSON AND STOCKHAM AND BETWEEN TUCSON AND POLVO EXTRAS MAY RUN WITHOUT RUNNING ORDERS, MOVING WITH THE CURRENT OF TRAFFIC, BUT MUST OBTAIN CLEARANCE CARD (Form 2643) BEFORE LEAVING TUCSON.

2. Extra trains may pass and run ahead of second-class trains without orders to do so.

3. Trainmen and enginemen must provide themselves with current G. H. & S. A. time table and supplements governing movements between Rio Grande and El Paso.

USE OF S. P. TRACKS BY E. P. & S. W.

4. E. P. & S. W. R. R. trains and engines will use Southern Pacific tracks between Benson and E. P. & S. W. R. R. Junction on Tucson Subdivision and between Deming and E. P. & S. W. R. R. Junction on Lordsburg Subdivision.

STANDARD CLOCKS.

5. Patio, Gila, Maricopa, Tucson Telegraph Office, Tucson Roundhouse, Benson, Nogales, Bowie, San Simon, Lordsburg and Deming.

WATCH INSPECTORS.

Name.	Location.	Territory.
Webb C. Ball,	San Francisco, 65 Market St.,	General Time Inspector.
G. D. Davidson Company,	El Paso	
W. P. Tossell & Son,	Deming	
Greenwald & Adams,	Tucson	Tucson Division except Yuma, Nogales and Deming.
J. G. Eberle,	Tucson	
Wm. Baird,	Yuma	
E. M. Mather,	Nogales	

BULLETIN BOARDS.

7. Patio, Gila, Tucson, Benson, Nogales, Bowie, Lordsburg, Deming.

CLEARANCE CARDS.

8. No train will leave Maricopa, Bowie or Deming without a Clearance Card Form 2643.

9. Rule 83-A will not apply at initial stations except when there is an operator on duty.

REGISTERING.

10. At registering stations on single track, or at end of double track when passing from single to double track, where trains are permitted to register by ticket as per Rule 83-B, conductors and telegraphers, or telephone operators, must comply with Rule 96, the same as at non-registering stations.

11. Eastward trains and first-class Westward trains will register at Stockham by ticket (Form 2642) as per Rule 83-B.

12. Westward trains and first-class eastward trains will register at Polvo by ticket (Form 2642) as per Rule 83-B.

TRAIN AND AIR INSPECTION.

13. Freight trains descending grades will stop at least ten minutes at Vanar and five minutes at Strauss, Sibyl, Fenner, Pantano, Vail, Enid, Bosque, Sanfords, Crittenden and Huachuca, where trainmen will make careful examination of cars in train. If necessary to stop at Mobile, inspection may be made there instead Enid. In case any wheels are hot, retainers will be turned down on such cars and turned up on others. In pulling out of these stations trainmen will be careful to see that running inspection is made and that brakes are fully released.

Eastward freight trains will stop at least five minutes at Mescal and westward freight trains at least five minutes at Estrella and make careful inspection of all cars in train.

At other points, after a continuous run of thirty miles, freight trains must be stopped and inspection made of running gear, wheels, etc., as per Rule 820, with exception where water stations are more than 30 miles and less than 35 miles apart run of not to exceed 35 miles will be permissible.

On arrival of freight trains at inspection terminals, final stop will be made with the automatic brake, after which sufficient hand brakes will be set on rear end of train to secure the train. The air brakes will then be released and when auxiliary reservoirs are properly recharged the locomotive will move forward a sufficient distance to stretch the train, then sufficient hand brakes set on head end of train to secure it. This in order to facilitate the inspection of draft gear.

14. Engines running light on descending grades of over 1½ per cent will make the same stops for inspection as are made by freight trains on such grades. These stops should be of sufficient length for enginemen to satisfy themselves that tires and machinery are in proper condition.

15. Air brake tests as outlined in Rule 17 in book of rules governing air brakes will be made by freight trains in each direction at Mescal, Dragoon, Steins, Sonoita, and by westward trains at Estrella, also at any other point where brake pipe has been separated. Passenger trains are not required to make standing air brake test at summit of grades as referred to in Rule 17, when brake pipe has not been broken, the running test as covered by Rule 16 being sufficient.

METHOD FOR TESTING FOR TRIPLE CAUSING UNDESIRED EMERGENCY (DYNAMITER).

16. If test is made on grade, a sufficient number of hand brakes must be set to secure train.

The brake pipe must be fully charged and brake valve kept in running or release position according to the type of brake or valve. Westinghouse in running position and New York in release position.

Trainmen will then, starting from rear, station themselves so as to observe two cars each. The angle cock ahead of the cars being tested will then be closed and angle cock on rear of caboose opened very slowly allowing a small flow of air, about the same as would be made from brake valve for a service application. If all brakes apply properly and show no bad triple action, close angle cock on rear of caboose.

The above procedure is to be followed throughout the train, first separating the hose between the forward car of the cut already tested and the rear car of the cut to be tested and closing the angle cock at the forward end of the leading car of the cut—the number of cars in each test depending upon the number of trainmen available, not to exceed two cars for each man. Air brake of car going into emergency will be cut out and report rendered on Form 2809.

After test is completed, and before train proceeds, rear end air brake test, as per Rule 17, of Rules and Regulations governing care and operation of air brakes, must be made to insure all hose coupled and angle cocks in proper position.

USE OF RETAINERS.

17. On freight trains, retainers will be used on grades in accordance with Rules Nos. 53 and 54, of "Rules and Regulations Governing Air Brakes, Etc., effective May 1, 1915," as follows:

EASTWARD TRAINS:—From Mescal to Benson.
From Sonoita to Calabasas.
WESTWARD TRAINS:—From Steins to Vanar.
From Dragoon to Benson.
From Estrella to Gila.

18. Retainers will be used Raso to Bowie on eastward trains when tonnage of train averages 110 Ms or over per operative brake and on other trains in accord with Rules 53 and 54 of Rules and Regulations Governing Care and Operation of Air Brake and Signal Apparatus. Where retainers are used Raso to Bowie a stop of ten minutes will be made at Alrich for inspection and allow wheels to cool.

19. Where retainers are used the rate of speed of freight trains on any grade of over one per cent (1%) will not exceed 25 miles per hour, and on grades of this character MORE THAN FIVE MILES LONG, FOR THE FIRST FIVE MILES THE TIME CONSUMED IN TRAVELING ANY ONE MILE SHALL NOT BE LESS THAN THREE MINUTES.

The above maximum speed restriction will not affect speed on heavier grades and other locations, where the maximum is now provided.

20. Descending the grade between Estrella and Gila on trains of empties, 10 or 12 retainers will be turned up solid, and on trains of loads and empties from 15 to 20 retainers, or about one-third of the total number in train will be turned up solid, on the head end of the train. If this number of retainers is insufficient, additional retainers will be used.

USE OF "19" AND "31" ORDERS.

21. Within automatic block signal limits between Patio and Estrella—Tucson and Lordsburg—Strauss and Rio Grande, the note under Rule 211 is modified as follows:

The use of "31" train orders may be discontinued except when orders are to be delivered to a train at a point not a telegraph station, restricting its superiority, in which case Rule 217 must be complied with, or when necessary to restrict a train that has been cleared, Rule 219 must be respected, or when issuing an order under Form "G," example 3; or when giving any train right over all trains; or when reducing a time order where necessary that dispatcher have signature of superior trains before completing order to an inferior train.

When orders are issued to superior train within block signal limits restricting its superiority at a point outside of block signal limits, "31" form must be used.

Operators must retain carbon copy of clearance cards issued.

Before delivering orders to a train, whether inside or outside of automatic block signal limits, operators will fill out clearance card, designating number of all orders for such trains and repeat train and order numbers as they appear on clearance card to dispatcher and obtain O. K. with time and Superintendent's initials and place same on clearance card in blank space provided therefor before delivery is made. Conductor and enginemen must not accept a clearance without the O. K., time and Superintendent's initials, when order numbers are designated thereon.

Dispatcher must write train and order numbers in train order book as repeated from the clearance by operator; also designated time clearance is O. K. The O. K. must not be given by dispatcher unless numbers designated on clearance card as repeated by operator correspond with all orders to be received by the train at that station.

When a "19" train order restricting the superiority of a train is issued for it at the point where such superiority is restricted, the train must be brought to a "stop" before the delivery of the order.

Conductor's and engineer's attention is called to the importance of approaching at a moderate rate of speed telegraph offices where orders are to be received. Also the necessity of carefully checking clearance to ascertain positively that clearance is properly addressed and that orders received are those called for by clearance.

22. When a helper engine is to be coupled into a train, copies of all orders affecting movement of the train at or beyond point from which helper is to be used must be delivered to each helper engine crew before leaving the point at which coupled into train.

If helper engine is picked up at a closed or non-telegraph office a copy of orders affecting movement of train at or beyond that station—and copy of clearance card—must be delivered to conductor of train at a preceding open telegraph office for delivery to the helper engine before leaving station at which cut in.

23. When superiority of westward train is restricted at Dome use Form 31 order.

24. That part of third paragraph of Rule 221-A reading: "But trainmen will relight the signal," is canceled.

25. Rule 251 is amended to read as follows:

In transmitting or repeating a train order by telephone it will be done according to the following example:

"SECOND NO. 25 ENG. 3205 WAIT AT NEWHALL UNTIL NINE FIFTY 950 PM FOR EXTRA 2756 EAST."

The order should appear as quoted above when ready for delivery.

The manner of sending or repeating the order is as follows: First pronounce the word "Second" and then spell it thus: "S-e-c-o-n-d"; pronounce the word "Number," which will be abbreviated by "No." Pronounce the figures 2-5 and follow by spelling each digit, thus: "t-w-o f-i-v-e"; pronounce the word "Engine," which may be abbreviated in the order as "Eng." Pronounce the engine number in figures as "3-2-0-5," then follow by spelling each figure, as "t-h-r-e-e t-w-o n-a-u-g-h-t f-i-v-e"; pronounce the words "wait at," then pronounce the station name and follow by pronouncing each letter of the station name, "N-e-w-h-a-l-l"; pronounce the word "until," then pronounce the time, "950" in the usual manner, then follow by spelling each word in the time, as "n-i-n-e f-i-f-t-y," then pronounce the figures: "950" followed by "P. M." Pronounce the word "for" also "Extra," then name each figure in the number, as: "2-7-5-6," following by spelling, as "t-w-o s-e-v-e-n f-i-v-e s-i-x," and then pronounce the word "East."

You will note that the words "Number," "Wait at," "For," "Extra" and "East" are merely pronounced and should not be spelled.

AUTOMATIC BLOCK SIGNALS.

26. Rule 504 is amended as follows:

When a train is stopped by a block signal it may proceed when the signal indicates proceed.

ON SINGLE TRACK send a flagman in advance immediately, wait at least five minutes after the flagman has started, and then follow the flagman to the next distant or home block signal in proceed position, or if the next distant or home block signal in advance is in plain view and in proceed position and track ahead is seen to be clear, proceed under control, not exceeding six miles per hour. Flagman need precede train only to a point where the track ahead is seen to be clear to the next distant or home block signal in proceed position, but train will not exceed six miles per hour to such block signal.

ON DOUBLE TRACK a train may proceed immediately, running under control, not exceeding six miles per hour, to the next distant or home block signal in advance, except that a flagman must precede the train when view is obstructed by weather conditions, tunnels, or other obstructions.

When a train is stopped by an automatic block signal governing yards at Wellton, Sentinel, Gila, Maricopa, Red Rock, Bowie or Deming, wait one minute, then proceed under control not exceeding six (6) miles per hour to depot or next home signal, provided main track is unobstructed between such points. In foggy or stormy weather send a flagman ahead.

A train stopped at home signal on account of opposing train which can be seen taking siding, may immediately proceed at speed not exceeding six miles per hour, to fouling point, provided track is seen to be clear to the fouling point.

When a train which is to take siding is stopped by home signal at meeting point at which opposing train is standing, on the main track, it may proceed immediately, under control, not exceeding six miles per hour, to the entering switch, provided track is seen to be clear to that switch.

When a train which is to take siding at meeting or passing point or is to enter terminal yard finds home signal, other than interlocking signal, in stop position on account of train to be met or passed standing on the main track, or on account of switch being lined up for receiving track, it may pass the home signal without stopping, when a trainman or switch tender is at the home signal giving proceed signals to indicate that switch is open, and may enter siding or receiving track at speed not exceeding six miles per hour, provided switch is seen to be open and track clear to fouling point of switch, except when westward home signal at east end of Patio train yard is at stop, first-class trains will send flagman in advance immediately and wait one minute, then proceed under control. Second class, inferior trains and yard engines will stop, sound call for signal (Rule 14 "j") and not proceed until signal from yardman is received.

When the number plate of a home block signal is reversed, showing "yellow," and signal indicates "stop," train may pass without stopping, but, unless otherwise directed by train order or bulletin, will proceed with caution to the next signal.

When light is not burning in a distant or home block signal, speed must be reduced sufficiently to enable engineman to be governed by the position of the signal blade, and to observe the number of the signal, and wire from first train order office from which report can be made without delay to train.

Flagman preceding a train stopped by a block signal will watch carefully for broken rails or other defects of track and when trains are authorized to proceed at six miles per hour without flagman in advance, both engineman and fireman will watch carefully for such defects.

Within block signal limits that portion of Rules 86 and D-86 reading "but must be clear at the time a first-class train in the same direction is due to leave the next station in the rear where time is shown" is canceled.

The use of the block system does not modify Rule 99.

INTERLOCKING PLANTS AND DOUBLE TRACK.

Last paragraph of Rule 630 is amended as follows:

"Hand signals must not be used when the proper indication can be displayed by the interlocking signals. When hand signals are necessary the signalman must assure himself that the switches are properly lined and that the route is clear. Signals must be given from such a place on the ground, and in such a way, that there can be no misunderstanding on the part of enginemen or trainmen as to the signals, or as to the train or enginemen for which they are given.

A yellow flag must be used by day, and a yellow light by night, in giving hand signals."

Rule 663 is amended as follows:

"Enginemen and trainmen must not accept a hand signal to proceed against an interlocking signal, except as provided in Rule 630. When hand signals are given for a train to pass an interlocking signal indicating "stop," train must be brought to stop and then proceed under control not exceeding six miles per hour, keeping a sharp lookout for open derailers and trains on conflicting routes.

Hand signals authorize movement only through the interlocking limits governed by the inoperative signal, and not through the automatic portion of the block, if any."

STOCKHAM.

27. Between west switch Stockham and Polvo is double track. Normal position junction switch Stockham is for eastward track.

All switches at Stockham and two crossover switches located 4000 feet east of Stockham telegraph office are handled by operator. Derailer on spur at west end of Stockham is not controlled by operator.

The top arm of the three arm signal located at west switch Stockham governs movement to eastward main track—the lower arm of this signal will govern diverging movement to westward track and will authorize occupation of westward track to double arm dwarf signal governing crossover switches 4000 feet east of Stockham telegraph office, but does not authorize further movement on westward track. Such further movement may be made only under flag protection or by train order.

Dwarf signal located at crossover 4000 feet east of Stockham telegraph office governs eastward movement of trains moving from westward main track to eastward main track.

The lower arm of three arm signal on westward track 4000 feet east of Stockham telegraph office will govern diverging movement against traffic and will authorize occupation eastward main track from this signal to left hand arm of bridge signal opposite Stockham telegraph office. This left hand arm on this bridge governs movement through the switch at end of double track.

When interlocking signal on eastward track just west of crossover switches 4000 feet east of Stockham telegraph office is at stop, enginemen will whistle flagman ahead; flagman will then proceed with proper flagging equipment inspecting position of crossover switches on eastward main track; finding each switch lined for the main track he will give proceed signal to the engineman, who will then proceed as per amended Rule 504, governing double track movement in block signal territory.

Eastward trains desiring to enter westward main track at the west switch, Stockham, will sound one long, and one short blast of the steam whistle (——— o).

SIXTH AVENUE.

Normal position of derailing switch in westward main track on west side of 6th Avenue, Tucson, is to derail.

Movement from eastward main track to passenger yard will be governed by top arm of double arm dwarf signal located 600 feet west of 6th Avenue.

Movement from eastward main track to freight yard will be governed by lower arm of double arm dwarf signal located 600 feet west of 6th Avenue.

Movement from passenger yard to westward main track will be governed by top arm of double arm dwarf signal located 6th Avenue.

Movement from passenger yard to eastward main track will be governed by lower arm of double arm dwarf signal located 6th Avenue.

Movement from freight yard to westward main track also to eastward main track through crossover will be governed by dwarf signal located east of derail.

Movement from westward main track to freight yard also to passenger yard through crossover will be governed by dwarf signal located opposite double arm dwarf signal 600 feet west 6th Avenue.

WHISTLE SIGNALS AS FOLLOWS:

Eastward main track to and from passenger yard, one short, one long, one short, o ——— o.

Eastward main track to or from freight yard, one short, one long, o ———.

Passenger yard to or from westward main, one long, one short, one long, ——— o ———.

Freight yard to or from westward main track, one long, one short, ——— o.

That part of amended Rule 630 reading:

"In giving hand signals for trains to move through interlocking limits against fixed signals the signalman must be on the ground and use yellow flag by day and yellow lamp by night," is amended in so far as tower at 6th Avenue is concerned, so that signals may be given from the window of the tower. Enginemen should satisfy themselves that the signal given is intended for their train. Enginemen will read carefully amended Rules 630 and 663 and must not accept a white lantern signal for movement through the interlocking plant.

POLVO.

28. Normal position of junction switch is for westward track, the junction switch and derailer on eastward main track will be handled by operator.

Trains leaving double track and entering single track will be governed by position of signal arm located on right hand side of signal bridge opposite Polvo telegraph office.

The lower arm on signals 9874 and 9887 are semi-automatic and govern diverging movements against traffic. These signals will only clear providing necessary switches over diverging route are first properly lined up and track is unoccupied. If after route is properly lined required signals do not assume proceed position flagman will precede train at once, train to follow after waiting five minutes. On receipt of proper line up for diverging routes train may proceed against current of traffic to signal governing movement to single track or to crossover switches governing return to current of traffic.

Movement against current of traffic beyond these crossover switches, 4000 feet west of junction switch Polvo may be made only under protection of flagman, or by train order.

LORDSBURG AND DEMING INTERLOCKERS.

29. At E. P. & S. W. crossing one mile west of Deming, and A. & N. M. crossing one mile west of Lordsburg, the normal position of signals and derails governing the interlocking plants are proceed and derails closed for S. P. trains. When these signals are at "Stop" the conductor or person in charge of train must send flagman ahead at once. He will examine carefully position of derail and see that same is closed, proceed to the cabin, located at the crossing, and on entering same ascertain that levers 1-3-7 and 9 in Lordsburg plant, and levers 1-5-7 and 12 in Deming plant are in "reverse position," as indicated on manipulation chart in front of machine. Finding these in "reverse position" flagman will proceed through interlocking limit and on finding derails on either side of crossing governing S. P. trains are closed and route known to be clear for S. P. train flagman by night will give "proceed" signal with a white light; by day, hand "proceed" signal.

When interlocking signals are found at stop they may be passed only in the manner prescribed by amended Rules 630 and 663, with the exceptions shown above.

SPEED TABLE.

30. This table is for the information of engineers in determining speed per mile and must in no way conflict with rules governing speed of trains.

Miles per Hour	1 Mile in Min. Sec.	Miles per Hour	1 Mile in Min. Sec.	Miles per Hour	1 Mile in Min. Sec.	Miles per Hour	1 Mile in Min. Sec.
6	10	21	2.51	31	1.56	41	1.27
8	7.30	22	2.43	32	1.52	42	1.25
10	6	23	2.36	33	1.49	43	1.23
12	5	24	2.30	34	1.45	44	1.21
15	4	25	2.24	35	1.42	45	1.20
16	3.45	26	2.18	36	1.40	46	1.18
17	3.31	27	2.13	37	1.37	47	1.16
18	3.20	28	2.8	38	1.34	48	1.15
19	3.9	29	2.4	39	1.33	49	1.13
20	3.	30	2.	40	1.30	50	1.12

GENERAL SPEED RESTRICTIONS.

31. Maximum speed of trains, except as limited by maximum speed for which engines are counterbalanced (see table), and by special, yard and miscellaneous restrictions, will be as follows:

Yuma and Rio Grande.	Passenger (Inc. Motor)	Freight
Rio Grande-Strauss	50	30
Strauss-Lordsburg	50	35
Lordsburg-Tucson	50	35
Tucson-Yuma	50	35
Tucson—Nogales Line.	Passenger	Freight
Tucson-Calabasas	40	30
Calabasas-Nogales	35	25
Benson—Calabasas Line.		
Benson-Patagonia	35	25
Patagonia-Calabasas	35	15

32. SPECIAL SPEED RESTRICTIONS.

Yuma and Rio Grande.		
East Switch Yuma to 1000 Feet East of Mile Post 734	35	25
Mile Post 749 to 755-A	30	20
Mohawk to 794-A	30	20
1400 Feet East to 2200 Feet East Mile Post 824	30	20
700 Feet West of Mile Post 868 to 870-A	30	20
From 600 Feet West Mile Post 1004 to Culvert 1010-E	30	20
Pantano to 1013-E	30	20
1016-D to 1018-B	30	20
900 Feet East 1020-C to 1020-E	30	20
1036-E to Mile Post 1040	30	20
500 Feet West of Culvert 1044-C to 1045-B	30	20
East Switch Ochoa to 1050-E	30	20
From 1057-D to West Switch Manzora	35	25
From 1065-B to 1068-A	45	30
Culvert 1122-C to 500 Feet East	30	20
1124-C to Steins	30	20
First Curve Just East Mile Post 1281	45	30
1283-A to 1284-B	45	30
Mile Post 1287 to 2000 Feet Eastward	45	30
1291-D to 1292-C	45	30
Benson—Calabasas Line.		
Shoofly between 1047-B and 1047-C	15	15
From Mile Post 1053 to Culvert 1055-B	20	20
Bridge 1085-A to Mile Post 1088	20	20
Bridge 1097-E—Culvert 1109-A	20	15

YARD SPEED RESTRICTIONS.

33.	Passenger Trains	Freight Trains
Patio	10	10

Except no train or engine may exceed a speed of six (6) miles per hour in Patio yard between the Colorado River and Third Street.

No train except first class will exceed speed of six (6) miles per hour between Third Street and East Lead Main track Patio yard.

The eastern limit of Patio yard to which yard speed restriction applies, is cotton gin spur.

Gila	15	10
Maricopa	15	10
Tucson	15	10
Benson	15	10
Nogales	15	10

Except no train or engine will exceed a speed of six miles per hour through corporate limits of Nogales.

Bowie	15	10
Lordsburg	15	10

The eastern limit of Lordsburg yard to which yard speed restriction applies is east switch of train yard.

Deming	15	10

Except no train or engine may exceed a speed of eight (8) miles per hour over any street crossing in Deming.

MISCELLANEOUS SPEED RESTRICTIONS.

34. Do not exceed 40 miles per hour at any point with 2-10-2 type 3600 class engines, 3600 to 3652 inclusive, 45 miles per hour with consolidation engines, or freight Mikado engines 3200 to 3235.

2-10-2 class engines Nos. 3653 to 3667 inclusive, must under no circumstances be used in passenger service, and in other service must not exceed 30 miles per hour on tangent track and curves of less than 6 degrees, and 15 miles per hour on curves of 6 degrees or over. Six degree curves or over are located in territory Blaisdell to Dome, Mohawk to Kim, Bosque to 1 mile east Ocapos, Vail to Mescal, Fenner to Lancha and Vanar to Steins.

35. Motor cars backing up must not exceed ten miles per hour in any yard and over highway crossings.

36. Speed on Brickland spur not exceed 8 miles per hour.

37. All eastward trains reduce speed to 20 miles per hour over switch at Brickland.

38. Westward out of Steins, Dragoon, Mescal and Estrella, and eastward out of Mescal, for the first three miles, no one mile shall be made by freight trains in less than three minutes.

MISCELLANEOUS SPEED RESTRICTIONS—Concluded.

39. Trains or engines must not exceed 10 miles per hour entering, leaving or moving on any siding or other track auxiliary to main track, or when passing from double to single track.

40. Engines running light must not exceed the maximum speed permitted freight trains unless otherwise directed, except that helper engines running forward light may make 25 miles per hour where speed limit of freight trains is 20 miles, in districts as indicated.

41. Maximum speed of any engine backing up is 25 miles per hour between Yuma and Rio Grande; 15 miles per hour between Tucson and Nogales, and Benson and Calabasas.

42. Trains entering sidings, will do so under control. Responsibility for collision is placed with entering train.

43. Trains handling Tucson, Yuma and El Paso steam derrick, must not exceed speed of 25 miles per hour on tangent and 15 miles per hour on curves of 4 degrees or over.

MISCELLANEOUS INSTRUCTIONS.

44. While cars or engines are rounding curve on Brickland spur, employees must not get off or on, or hang on or lean from sides of cars or engines, on inside of curves account projecting rocks and pier of bridge.

45. Engines must, in every instance, be cut off from freight trains of over 20 cars before taking water.

46. No crossing shall be blocked for a period of five minutes or longer at Tucson.

47. No crossing shall be blocked for a period of ten minutes or longer at Deming.

48. All trains and engines must be brought under control a sufficient distance before reaching crossing of electric street railway, Stone Avenue, Tucson yard, and be prepared to stop, if necessary.

49. Between Colorado River Bridge and Fourth Street, Patio, use of locomotive whistle is prohibited except in emergency, and answering air signal when testing brakes.

50. Engines of westward passenger trains must stop east of the Colorado River Bridge.

51. Trains taking siding at Sentinel, to meet or be passed, will be governed as follows: Westward trains (except first class) will take East siding; westward first class and all eastward trains will take West siding.

In taking siding at Mohawk eastward trains use house track (track No. 2) and westward trains the siding (track No. 1).

52. Between Mescal and Benson eastward, Dragoon and Benson westward, Sonoita and Calabasas eastward, and Steins and San Simon westward, freight train tonnage must not exceed the average of 120 ms. per operative brake.

53. When one torpedo is exploded, train will come to a stop as per Rule 15. If no person is at hand to explain the placing of the torpedo, train may proceed as hereinafter provided.

(a) If view is obscured by curves, fog or storm, flagman must be sent ahead and train may follow, under control, in the manner prescribed by amended Rule 504.

(b) If track is seen to be clear, or within automatic block limits, if signals indicate ''PROCEED,'' a train may proceed, but will run under control not exceeding six miles per hour for a distance of one-half mile, before resuming full speed.

54. On double track lines, when a train finds a fusee burning red, train must be brought to a stop, and may then proceed cautiously not exceeding six (6) miles per hour, to the obstruction or until clear signal is reached, or until track is known to be clear.

55. When trains leave stretches of continuously blocked-signaled track, red fusee will be left near the last signal, when it is possible a train is following less than ten (10) minutes. Conductor and enginemen having knowledge from any source whatsoever that the preceding train is less than ten (10) minutes ahead of them leaving stretches of track that are continuously block-signaled, will space themselves at the last signal in accordance with Rule 91.

56. When doubling, engine running for water, or for any other purpose, it becomes necessary to leave a portion of a train on the main track, a red flag by day and a red light by night must be placed on the head car of the standing cut of cars, and in addition two torpedoes placed not less than one-fourth mile in advance thereof. Enginemen must know the location of cars thus left standing and must use extreme care in returning for rear portion of train.

57. When a train stops for an unattended red signal, except a fixed signal or red fusee, flagman must be promptly sent ahead for one-half mile, and after waiting reasonable time for flagman to precede train, it will follow at a speed not exceeding six (6) miles per hour through the half mile limit.

58. Yellow flags and lamps, or slow boards, will be placed one-fourth mile on each side of structures or piece of track over which speed of trains must not exceed fifteen miles per hour, or rate of speed specified by bulletins, train orders, or slow boards.

59. Where two or more main tracks are involved the placing of signals on the right hand side of track in the governing direction is the proper procedure.

60. P. F. E. cars, oil cars of over 7500 gallon capacity, furniture cars, automobile cars, coke racks, or cars of over 42 feet in length, will not be handled between Sonoïta and Calabasas without special authority in each case.

Such cars offered for movement will be set out and this office advised. Low cars will not be accepted weighing over 161,000 lbs. gross.

61. First-class trains meeting at Gila, the train of inferior direction or the train that is required to take siding, will take siding at the passenger station unless otherwise instructed.

62. Sechedules as shown for eastward passenger trains or run late or wait orders for same at Benson apply at the first cross over switch east of station. At Bowie at the east switch to the west yard; At Deming at the crossover switch in front of section house. When passenger trains meet at these stations westward trains should take siding at above mentioned switches unless otherwise instructed. Special effort must be made to keep such tracks clear for this purpose.

DERAILERS IN MAIN TRACK.

63. Derailing switch 579 feet west of west switch Nogales, may be run through by eastward trains. Westward trains must stop and examine this switch before crossing. After any train has crossed, switch must be left set and locked for derail. No train must pass over this switch at a speed to exceed 6 miles per hour.

YARDS.

64. Yards are established at the following stations: Patio, Gila, Maricopa, Tucson, Benson, Nogales, Bowie, Lordburg and Deming.

65. Rules 93 and D-93 are revised as follows: ''Within yard limits the main track may be used, protecting against first class trains. ALL trains must approach yard limits and pass through yards under control.''

TELEGRAPHONE CALLS.

Patio: ———
Dome: ——— o o o
Welton: o o o ———
Mohawk: o o
Sentinel: ——— ——— ——— o
Gila: ——— o ———
Estrella: o o o
Maricopa: ——— ——— o o
Casa Grande: ——— o
Red Rock: o ——— o ———
Tucson Dispatcher's Office: ——— ——— ——— ———
Mescalo: o ——— ———
Benson: o o ——— ———
Dragoon: ——— ——— o
Bowie: o o o o
San Simon: o ——— o
Steins: ——— ——— o o
Lordsburg: ——— ——— ———
Separ: ——— o o o
Gage: ——— ——— o o o
Deming: ——— ———
Cambray: o ——— ———
Lanark: ——— ——— ——— o
Strauss: o o o ———
Nogales: o o o o o
El Paso: ———

OVERHEAD STRUCTURES.

Below is a list of overhead structures on Tucson Division that do not clear man standing on top of high car:

Yuma and Rio Grande.

Bridge over San Pedro River	Mile Post	1033.67—21′ 3″

Benson—Calabasas Line.

Bridge over San Pedro River	Mile Post	1051.99—19′ 3″
" " Babacomari Creek	" "	1055.31—20′ 6″
" " Babacomari Creek	" "	1067.43—20′ 0″
" " Sonoita Creek	" "	1104.73—19′ 5″
" " Sonoita Creek	" "	1108.64—20′ 0″

All employees are warned that it is dangerous to stand erect on cars, particularly of extraordinary height, while passing any of these points, and must use necessary precaution to protect themselves from injury.

AVERAGE WEIGHT OF PASSENGER TRAIN CARS—POUNDS.

Kind of Car	Average Weights—Pounds		
	Wood	Steel	Steel Underframe
Baggage	75,000	91,000	
" (Dynamo)		101,000	
Baggage and Mail 60′		97,000	92,000
" " " 69′	75,000	122,000	
Baggage and Passenger	65,000		
Buffet		131,000	122,000
" (Dynamo)		146,000	
Business	108,000	179,000	136,000
Chair	84,000	98,000	
Coaches	75,000	95,000	
Dining	131,000	146,000	138,000
Express Horse	79,000		
Express, Refr. (A. R. E.) 40 to 154			78,000
" " " " " 155 to 224			89,000
" " " " " 500 to 506			110,000
" " " " " 1101 to 1175			85,000
" " (GN RR)	70,000		
" " (NP RR)	60,000		74,000
Observation	122,000	144,000	128,000
Postal 40′		72,000	
" 60′		111,000	
Pullman Observation	124,000	148,000	142,000
" Parlor	115,000	149,000	142,000
" Standard Sleepers	125,000	152,000	145,000
" Tourist Sleepers	94,000		133,000
Tea and Silk	48,000		

SURGEONS - TUCSON DIVISION

Name—	Location	District
DR. F. K. AINSWORTH, Manager and Chief Surgeon	San Francisco, Cal.	All
DRS. J. A., H. D. and E. B. KETCHERSIDE	Yuma, Ariz.	Yuma and Mohawk
DR. C. E. ROONEY, Assistant District Surgeon	Yuma, Ariz.	Yuma and Mohawk
DR. L. H. RICHARDS, District Surgeon	Gila, Ariz.	Mohawk and Maricopa
DR. E. J. GUNGLE, District Surgeon	Casa Grande, Ariz.	
DR. C. A. THOMAS, Division Surgeon	Tucson, Ariz.	Maricopa and Pantano
DR. S. C. DAVIS, Assistant Surgeon	Tucson, Ariz.	Maricopa and Pantano
DR. C. E. PATTERSON, Oculist and Aurist	Tucson, Ariz.	
DR. C. T. DULIN, Oculist and Aurist	Tucson, Ariz.	
DR. H. W. FENNER, Consulting Surgeon	Tucson, Ariz.	
DR. J. N. MORRISON, District Surgeon	Benson, Ariz.	Pantano, Dragoon and Huachuca
DR. W. F. CHENOWETH, District Surgeon	Nogales, Ariz.	Huachuca and Nogales
DR. J. B. ELLIS, District Surgeon	Cochise, Ariz.	
DR. J. C. WILSON, District Surgeon	Willcox, Ariz.	Dragoon and San Simon
DR. B. E. BRISCOE, Assistant Surgeon	Wilcox, Ariz.	
DR. M. L. ALEXANDER, Emergency Surgeon	San Simon, Ariz.	
DR. M. M. CROCKER, District Surgeon	Lordsburg, New Mexico	San Simon and Wilna
DR. S. D. SWOPE, District Surgeon	Deming, New Mexico	Wilna and Aden
DR. F. D. VICKERS, Assistant District Surgeon	Deming, New Mexico	Wilna and Aden
DR. H. H. STARK, Oculist and Aurist	El Paso, Tex.	All
DR. R. L. RAMEY, District Surgeon	El Paso, Tex.	Aden and El Paso
DR. H. H. VARNER, Assistant Surgeon	El Paso, Tex.	Aden and El Paso
DR. J. E. REDDEN, Emergency Surgeon	Patagonia, Ariz.	

LOCATION HOSPITAL STRETCHERS.

Yuma
Tucson
Maricopa
Gila
Lordsburg
Deming
Benson
Bowie

HOSPITALS.

General Hospital, S. P. Hospital, San Francisco, Cal.
Division Hospital, St. Mary's Hospital, Tucson, Ariz.

NOTE—Emergency surgeons should only be summoned for temporary treatment when prompt attention is required and when patients cannot be sent to or await arrival of Division or District Surgeon.

RATING OF LOCOMOTIVES—TUCSON DIVISION

FOR THROUGH AND LOCAL TRAINS IN MS. OF 1000 LBS. BACK OF TENDER

NOMINAL CLASS	OFFICIAL CLASS	ENGINE NUMBERS	BOILER PRESSURE	PATIO to TUCSON	TUCSON to BENSON	BENSON to TUCSON	BENSON to LORDSBURG	LORDSBURG to BENSON	BENSON to LORDSBURG	LORDSBURG to RIO GRANDE	RIO GRANDE to DEMING	DEMING to LORDSBURG	TUCSON to PATIO
				Helper 1.0	Helper 1.0	Helper 1.0	Helper 1.0	Helper 1.0	Single	Single	Single	Single	Single
E—10	E—63 17/24 47	1320, 1331, 1337, 1344, 1349	140	1370	1370	1050	960	1170	530	1200	1200	1330	1330
E— 2	E—69 18/24 59	1372, 1373, 1375	150	1490	1490	1120	1050	1270	560	1320	1320	1460	1460
E— 2	E—69 18/24 61	1374, 1376 to 1381	150										
E— 5	E—69 18/24 61	1383, 1386, 1387, 1389, 1390, 1392 to 1394, 1396, 1397, 1401	165	1630	1630	1210	1140	1380	610	1450	1450	1600	1600
E— 5	E—63 18/24 65	1395	165										
M— 4	M—63 20/28 126	1615 to 1719	190	3050	3050	2420	2120	2640	1210	2660	2660	2920	2920
T—16	T—57 18/24 80	2039 to 2073, 2081, 2082, 2095	165	2030	2030	1590	1420	1750	800	1780	1780	1960	1960
T—11	T—57 18/24 81	2124 to 2126, 2128, 2130 to 2133	160	1980	1980	1540	1380	1700	770	1730	1730	1910	1910
T— 8	T—57 18/24 87	2176 to 2179, 2181 to 2183	160	1960	1960	1520	1370	1680	740	1710	1710	1880	1880
T— 2	T—63 19/24 105	2221 to 2234	160	1950	1950	1470	1360	1650	740	1710	1710	1880	1880
T—25	T—69 20/28 134	2274 to 2281	200	2930	2930	2270	2050	2520	1140	2580	2580	2840	2840
T—31	T—63 22/28 162-S	2353 to 2362	200	4110	4110	3300	2870	3600	1650	3590	3590	3950	3950
T—32	T—69 23/28 174-S	2363 to 2370	200	4110	4110	3320	2910	3660	1660	3630	3630	3990	3990
T—32	T—69 23/28 174-S	2371 to 2378	210	4350	4350	3530	3080	3890	1770	3840	3840	4220	4220
P— 1	P—77 22/28 141-S	2400 to 2427, Superheated	210	3440	3440	2710	2420	3020	1330	3040	3040	3350	3350
P— 3	P—77 22/28 141-S	2428 to 2437, Superheated	210										
P— 3	P—77 22/28 141	2428 to 2437, Saturated	200	3140	3140	2400	2200	2680	1200	2770	2770	3060	3060
C— 9	C—57 22/30 194-S	2513 to 2599, 2752 to 2830, Superheated	210	4800	4800	3880	3350	4200	1950	4180	4180	4600	4600
C— 8	C—57 22/30 192-S	2698 to 2751, Superheated	210										
C—10	C—57 22/30 194-S	2831 to 2836, 2839 to 2857, Superheated	210										
C— 9	C—57 22/30 187	2513 to 2599, 2752 to 2830, Saturated	200	4270	4270	3410	2970	3700	1710	3710	3710	4080	4080
C— 8	C—57 22/30 184	2698 to 2751, Saturated	200										
C— 5	C—57 22/30 187-S	2624 to 2679, Superheated	210	4830	4830	3950	3390	4270	1980	4220	4220	4630	4630
C— 5	C—57 22/30 185-S	2680 to 2693, Superheated	210										
C— 5	C—57 22/30 180	2624 to 2679, Saturated	200	4300	4300	3480	3000	3710	1740	3730	3730	4120	4120
C— 5	C—57 22/30 178	2680 to 2693, Saturated	200										
TW— 3	TW—50 20/26 120	2933 to 2939, 2941 to 2945	170	3040	3040	2440	2120	2650	1220	2640	2640	2910	2910
A— 3	A—81 20/28 112-S	3025 to 3071, Superheated	210	2650	2650	1980	1870	2240	990	2360	2360	2610	2610
A— 3	A—81 20/28 105	3025 to 3071, Saturated	200	2410	2410	1760	1690	2010	880	2120	2120	2370	2370
MK— 5	MK—63 26/28 210-S	3236 to 3249, 3270	200	5780	5780	4680	4070	5100	2350	5060	5060	5560	5560
MK— 6	MK—63 26/28 210-S	3250 to 3269	200										
F— 1	F—63 27½/32 273-S	3600 to 3651	200	*5900	*5900	*4840	*4800	*5250	2850	6000	6000	6700	6700
				*With Helper 0.7	*With Helper 0.7	*With Helper 0.7	*With Helper 0.7	*With Helper 0.7					
Allowance for empty and under loaded cars.		Less than 40 M's		6	3	3	3	3	3	6	6	6	6
		40 M's to 50 M's		3	0	0	0	0	0	3	3	3	3
				Helper 0.5 PATIO to IVALON	Helper 1.0 TUCSON to MESCAL	Helper 1.0 BENSON to MESCAL	Helper 1.0 BENSON to DRAGOON	Helper 1.0 BOWIE to RASO					
				Helper 1.0 GILA to ESTRELLA			SAN SIMON to STEINS	COCHISE to DRAGOON					

Note:—Ratings of through trains East will be those shown in Column 4, Benson to Lordsburg for the entire district, Tucson to Lordsburg to avoid setting out at Benson.

Ratings of through trains West will be those shown in Column 8, Rio Grande to Deming for the entire district, Rio Grande to Lordsburg, to avoid setting out at Deming.

MAXIMUM SPEEDS FOR WHICH LOCOMOTIVES ARE COUNTERBALANCED.

All Locomotives, with the following exceptions are Counterbalanced for a speed in miles per hour equal to the number of inches in diameter of driving wheels.

Class of Locomotive	Engine Numbers	Maximum Speed in Miles per Hour	Maximum Wheel Pressure
A-1	3000 to 3009	63	45120 lbs.
A-2	3022	64	44500 "
F-2	3600	45	45200 "
MC-1	4000 and 4001	53	42760 "
MC-2	4002 to 4016	53	42760 "
MC-4	4017 to 4028	53	43130 "
MC-6	4029 to 4043	53	43230 "
MC-6	4044 to 4048	53	42680 "
MK-2	3200 to 3202, 3205, 3206, 3210, 3211	49	46140 "
MK-4	3216 to 3230, 3232 to 3235	49	45560 "
MM-2	4200 to 4211	56	46300 "
T-6	2187, 2190, 2194, 2200, 2203, 2204, 2205	50	22740 "
T-6	2197, 2208	45	24110 "
T-28	2311 to 2314, 2316, 2317, 2320, 2323, 2325, 2327, 2328, 2330, 2342, 2343, 2352	54	46220 "
TW-2	2946, 2948 to 2953	43	25860 "
TW-4	2926 to 2931	44	26000 "

Note.—Maximum speed in miles per hour is based on vertical disturbing force of Counterbalance not exceeding 75% of static wheel load, and maximum wheel pressures shown obtain at speeds indicated.

The above table is for the information of engineers, and must not be construed in any way to authorize exceeding speed limits specified in speed restriction table.

MILEAGE

Main Line

Yuma to Rio Grande	S. P. R. R.		560.72

Branches

Benson	S. P. R. R.	Benson to Calabasas	78.75
Nogales	S. P. R. R.	Twin Buttes Jct. to Nogales	65.48
Total Branches			144.23
Total Tucson Division			704.95

WM. WILSON,
Superintendent

A. E. BROWN
Assistant Superintendent

TRAINMASTERS

C. L. ZWICK..............................Lordsburg

J. J. SULLIVAN..............................Yuma

R. G. PROSOLE..............................Tucson

TRAIN DISPATCHERS

O. HAEFER
J. E. JAY
O. L. FULTZ

C. P. DEVLIN
R. E. McQUAY
F. W. LIVESLEY

H. W. CASSADY
W. M. FULLER
S. F. HYDE

A. F. De HART
M. W. CASSADY
G. STEWART

W. A. POOLE
O. L. SPAULDING
J. L. GLENN

L. C. BELDEN
J. E. NUSZ

Chief Train Dispatcher, J. J. COWIN

Asst. Chief Train Dispatcher, J. SHAKESPEARE

Asst. Chief Train Dispatcher, H. G. BONORDEN

MAP OF THE TUCSON DIVISION

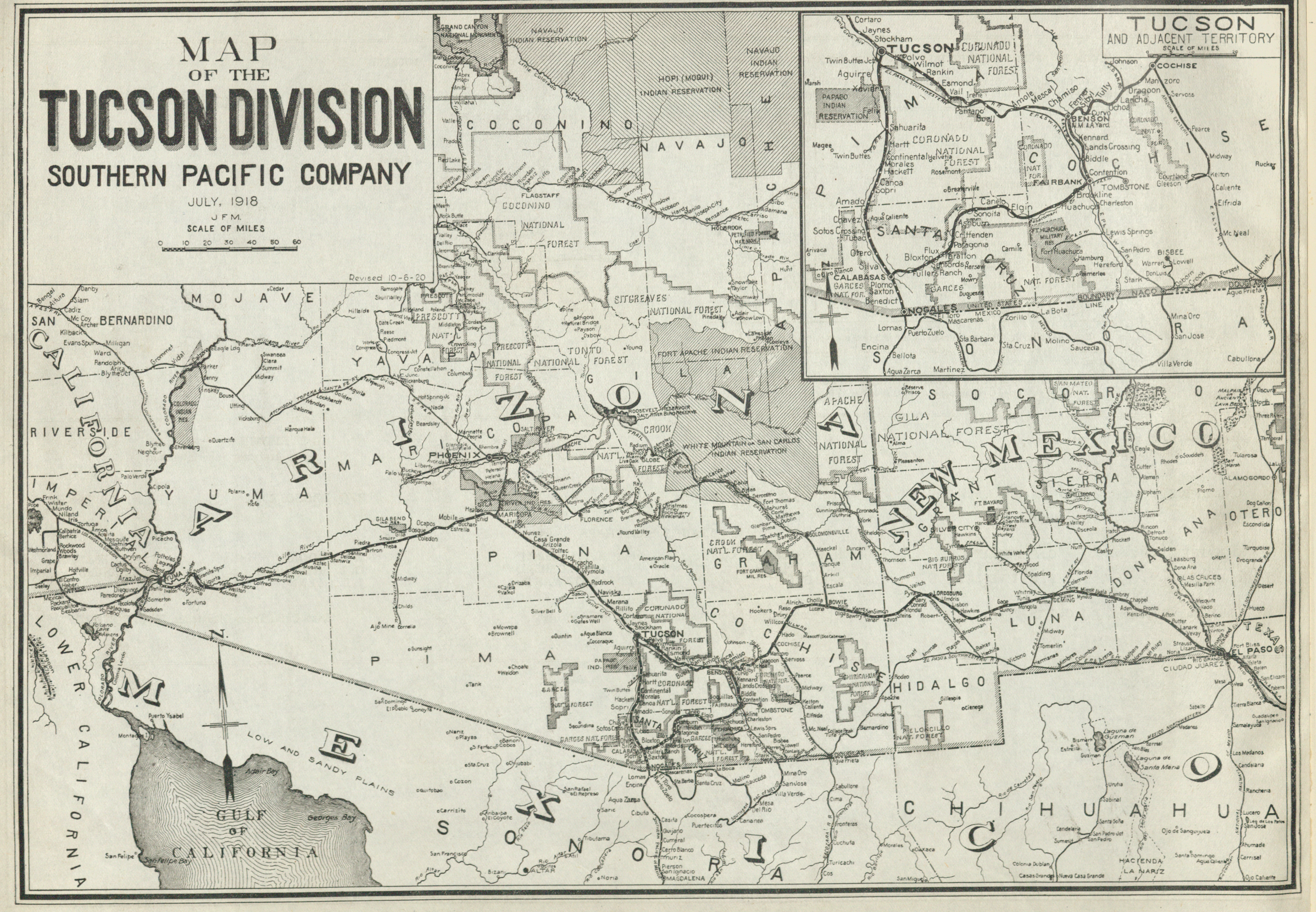
SOUTHERN PACIFIC COMPANY

JULY, 1918

J.F.M.

SCALE OF MILES

Revised 10-6-20


0 10 20 30 40 50 60
TUCSON AND ADJACENT TERRITORY
SCALE OF MILES
ARIZONA
NEW MEXICO
CALIFORNIA
TEXAS
LOWER CALIFORNIA
SONORA
CHIHUAHUA
MEXICO
GULF OF CALIFORNIA
LOW AND SANDY PLAINS
COCONINO
NAVAJO
YAVAPAI
MOJAVE
SAN BERNARDINO
RIVERSIDE
IMPERIAL
YUMA
MARICOPA
PINAL
PIMA
GILA
GRAHAM
GREENLEE
COCHISE
SANTA CRUZ
APACHE
SOCORRO
SIERRA
GRANT
LUNA
HIDALGO
DONA ANA
OTERO
GRAND CANYON NATIONAL MONUMENT
NAVAJO INDIAN RESERVATION
HOPI (MOQUI) INDIAN RESERVATION
COCONINO NATIONAL FOREST
SITGREAVES NATIONAL FOREST
PRESCOTT NATIONAL FOREST
TONTO NATIONAL FOREST
FORT APACHE INDIAN RESERVATION
WHITE MOUNTAIN or SAN CARLOS INDIAN RESERVATION
APACHE NATIONAL FOREST
GILA NATIONAL FOREST
CROOK NAT'L FOREST
CORONADO NATIONAL FOREST
GARCES NAT'L FOREST
CHIRICAHUA NATIONAL FOREST
PELONCILLO NAT'L FOREST
BIG BURROS NAT'L FOREST
PAPAGO INDIAN RESERVATION
FT. HUACHUCA MILITARY RES.
COLORADO INDIAN RES.
FORT GRANT MIL. RES.
UNITED STATES
MEXICO
BOUNDARY LINE
PHOENIX
TUCSON
YUMA
FLAGSTAFF
PRESCOTT
GLOBE
FLORENCE
BENSON
NOGALES
TOMBSTONE
BISBEE
DOUGLAS
LORDSBURG
DEMING
EL PASO
CIUDAD JUAREZ
LAS CRUCES
ALAMOGORDO
SILVER CITY
COCHISE
FAIRBANK
CALABASAS
SOLOMONSVILLE
BOWIE
HOLBROOK
MAGDALENA
ALTAR